

Work Order ID 94624

94624

Page 1

December-19-12 1:19:15 PM

Item ID: D3075-1

Accept

N900040100

Setup

Start

NS1

Revision ID:

Stop

NS2

Item Name: R44 Bearpaw

Start Date: 12/19/12 Start Qty: 4.00

4

Cust Item ID:

Required Date: 1/11/13 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals: Process Plan:

BL

Date: 13-01-2

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3075	Rev B								
110		0.00							
110	FLOW WATER JET								
Waterjet	Memo	0.00							
FLOW CNC Waterjet	CUT BLANK AS PER FILE D3075-1_BLANK								
UHAW 1" B/k.									
120		0.00							
120	HAAS CNC VERTICAL MACHINING #1								
HAAS 1	Memo	0.00							
HAAS CNC vertical machine #1	Note: (2) Bearpaw for (1) Kit 1-Inspect material for defects or damage prior to machining2-Machine as per Folio FA185 and Dwg D3076 Identify as D3075-13-Deburr								
130	QC2- Inspect parts off machine FAI/FAIB	0.00							
130	Memo	0.00							
QC									
Quality Control									

JFC/B 2013-01-18

9 0

Jm 13-1-10

JFC/B 2013-01-18

9 0

JFC/B 2013-01-18

9 0

NCR: Yes / No

WORK ORDER NON-COMPLIANCE / UPDATE

DQA: Date:

QA Closed: Date:

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS										
			Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>									
			Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>									
			Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>									
			Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>										
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector							
Doc/Data																
Equip/Tooling																
Operator																
Material																
Setup																
Other																
Process																
Supplier																
Training																
Unapproved																
FAULT CATEGORY																
Landing Gear				General												
Bending	<input type="checkbox"/>			Bend	<input type="checkbox"/>			Grain	<input type="checkbox"/>			Ovalized	<input type="checkbox"/>			Pressure/Forced
Centre Not Concentric to O/S	<input type="checkbox"/>			BOM/Route	<input type="checkbox"/>			Hardware	<input type="checkbox"/>			Over/Under tolerance	<input type="checkbox"/>			Temperature/Cure
Cracks	<input type="checkbox"/>			Broken/Damaged	<input type="checkbox"/>			Inspection Incomplete	<input type="checkbox"/>			Part Incorrect	<input type="checkbox"/>			Weld
Crushed/Crimped.	<input type="checkbox"/>			Burrs	<input type="checkbox"/>			Instruction Is Incomplete/Unclear	<input type="checkbox"/>			Part Lost/Missing	<input type="checkbox"/>			Wrong Stock Pulled
Cuffs	<input type="checkbox"/>			Contamination	<input type="checkbox"/>			Maintenance	<input type="checkbox"/>			Part Moved	<input type="checkbox"/>			
Heat Treat	<input type="checkbox"/>			Countersink	<input type="checkbox"/>			Mislabeled	<input type="checkbox"/>			Positioned Wrong	<input type="checkbox"/>			
Inspection Strip in Tube	<input type="checkbox"/>			Cut Too Short	<input type="checkbox"/>			Misread	<input type="checkbox"/>			Power Loss/Surge	<input type="checkbox"/>			
Ripples in Bend	<input type="checkbox"/>			Drill Holes	<input type="checkbox"/>			Offset	<input type="checkbox"/>			Other	<input type="checkbox"/>			
Torque Waves in Extrusion	<input type="checkbox"/>			Drawing	<input type="checkbox"/>			Out of Calibration	<input type="checkbox"/>				<input type="checkbox"/>			
Turning Sequence	<input type="checkbox"/>			Finish	<input type="checkbox"/>			Out of Sequence	<input type="checkbox"/>				<input type="checkbox"/>			
Wave/Twist in Tube	<input type="checkbox"/>			Folio	<input type="checkbox"/>			Outside Dimensions	<input type="checkbox"/>				<input type="checkbox"/>			

94624

December-19-12 1:19:15 PM

Item ID: D3075-1

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: R44 Bearpaw

Stop

NS2

Start Date: 12/19/12 Start Qty: 4.00

4

Cust Item ID:

Required Date: 1/11/13 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

140

140

QC

Quality Control

QC8- Inspect parts - second check

0.00

9

DAS

25

130121

150

150

Packaging

Packaging

Identify as per dwg & Stock Location: _____

0.00

Memo

PPP 94460
0.00
st 269 1/x

RJ3/1/22 (E)

160

160

QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

1301/22 JJ

13-01-22

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____		DISPOSITION			AGAINST DEPARTMENT/PROCESS																	
Part No. _____		Rework <input type="checkbox"/>	Scrap <input type="checkbox"/>	Use-as-is <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Machining <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Finishing <input type="checkbox"/>	Composite <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/>	Quality <input type="checkbox"/>	Other <input type="checkbox"/>			
NCR No. _____		Work Order Update <input type="checkbox"/>																				
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description			Sign & Date	Verification		QC Inspector									
Doc/Data <input type="checkbox"/>																						
Equip/Tooling <input type="checkbox"/>																						
Operator <input type="checkbox"/>																						
Material <input type="checkbox"/>																						
Setup <input type="checkbox"/>																						
Other <input type="checkbox"/>																						
Process <input type="checkbox"/>																						
Supplier <input type="checkbox"/>																						
Training <input type="checkbox"/>																						
Unapproved <input type="checkbox"/>																						
FAULT CATEGORY																						
Landing Gear				General																		
<input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				<input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspector Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions											<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Other				<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled			

Picklist Print

December-19-12 1:19:14 PM

Page 1

Work Order ID: 94624

Parent Item: D3075-1

Parent Item Name: R44 Bearpaw

Start Date: 12/19/12

Required Date: 1/11/13

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev:C04.02.19Added tolerance and ref to DSK086-12 to Step 3KJ/JLM
IPP Rev:D Added C'Bores as per Rev B 07-03-28 JLM
IPP Rev:E 08-01-09 Added Step 2 JLM Verified By:EC
IPP Rev:F 08-11-12 New Manufacturing Method JLM Verified By:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MUHMWB10 UHMW 1" Black		Purchased	No			100	sf	296.4950	1		19 S.F		JM 13-1-10

Location	Loc Qty	Loc Code
MAT019	296.4949895	
121278	12.0949895	
122575	47.6	
123229	53	
123704	63.8	
123949	120	

(24167

124167.

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____			DISPOSITION		AGAINST DEPARTMENT/PROCESS					
			Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>			
			Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>			
			Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>			
			Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>				
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector	
Doc/Data										
Equip/Tooling										
Operator										
Material										
Setup										
Other										
Process										
Supplier										
Training										
Unapproved										
FAULT CATEGORY										
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions						
				<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Other						

DART AEROSPACE LTD	Work Order:	94424
Description: R44 Bearpaw	Part Number:	D3075-1
Inspection Dwg: D3075 Rev: B		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

First Article Prototype

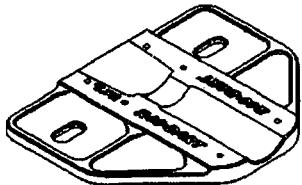
Inspection Sheet Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
A 0.07 x 45°	+0.030/-0.010	0.068X45°	✓			OPC01
B 0.63	+/-0.030	0.630	✓			"
C 0.250	+/-0.010	0.250	✓			OPC02
D 0.950	+0.030/-0.010	0.942	✓			"
E 5.50	+/-0.030	5.500	✓			OPC01
F 0.25 x 45°	+/-0.030	0.25X45°	✓			OPC04
G 0.900	+/-0.010	0.895	✓			31006
H 0.375	+/-0.010	0.370	✓			OPC01
I 1.30	+/-0.030	1.30	✓			OPC01
J 5.70	+/-0.030	5.70	✓			"
K 0.37	+/-0.030	0.378	✓			"
L 3.600	+/-0.010	3.597	✓			"
M 0.260	+0.005/-0.000	0.260	✓			"
N 0.93	+/-0.030	0.930	✓			OPC01
O 0.30	+0.030/-0.000	0.312	✓			OPC-07
P 1.08	+/-0.030	1.077	✓			31006
Q 5.870	+/-0.010	5.873	✓			OPC01
R 10.14	+/-0.030	10.137	✓			31006

Measured by:	OPC01	Audited by:	25 S-83	Prototype Approval:	N/A
Date:	2013-01-18	Date:	13-01-21	Date:	N/A

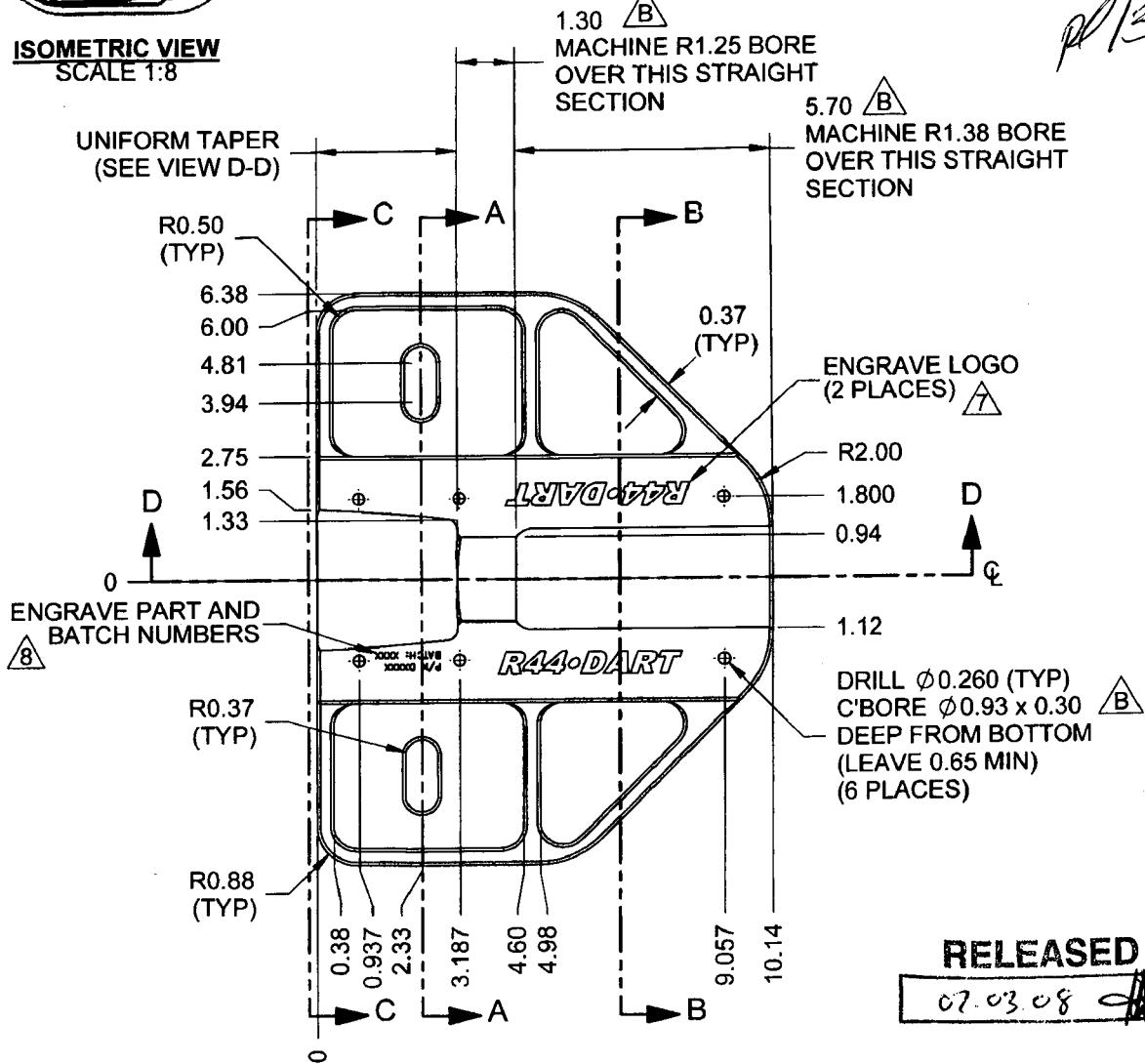
Rev	Date	Change	Revised by	Approved
A	04.01.13	New Issue P/O D044-662-011	KJ/RF	
B	08.01.16	Dwg Rev updated	KJ/EC/DD	BB

DART

DESIGN <i>CH</i>	DRAWN BY <i>CB</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>JB</i>	APPROVED <i>MM</i>	DRAWING NO. D3075	REV. B SHEET 1 OF 2
DATE 07.02.27		TITLE R44 BEARPAW	SCALE 1:4
REV A	DATE 02.01.04	DESCRIPTION NEW ISSUE	
REV B	DATE 07.02.27	1.30 WAS 1.60; 5.70 WAS 5.84; ϕ 0.93 WAS ϕ 0.75; ADD QTY(2) HOLES AT (0.937, ±1.800)	



ISOMETRIC VIEW
SCALE 1:8

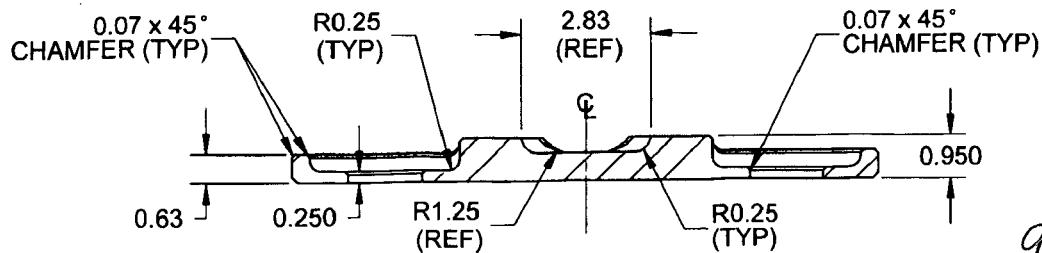
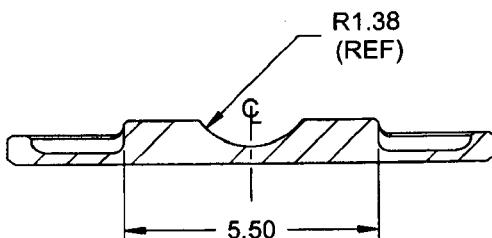
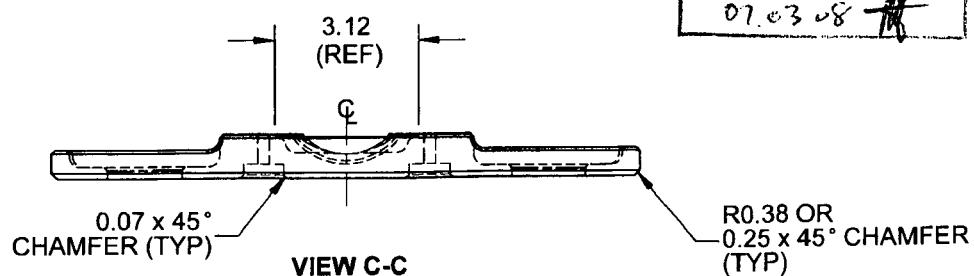
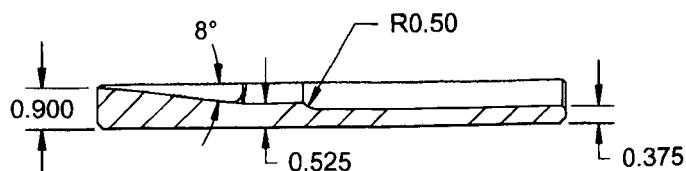


NOTES:

- 1) MATERIAL: UHMW BLACK PER SPEC CONTROL DRAWING D2689, 1.00 THICK (MACHINE TO 0.950)
- 2) FINISH: NONE
- 3) PART IS SYMMETRIC ABOUT **C**
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED
- 6) BREAK ALL SHARP EDGES 0.005 TO 0.010 MAX
- 7) ENGRAVE LOGO TO MAX DEPTH OF 0.012 AT LOCATION SHOWN
- 8) ENGRAVE PART AND BATCH NUMBERS TO MAX DEPTH OF 0.010 AT LOCATION SHOWN

DART

DESIGN <i>CH</i>	DRAWN BY <i>CB</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHECKED <i>BS</i>	APPROVED <i>CH</i>	DRAWING NO. D3075
DATE 07.02.27	TITLE R44 BEARPAW	REV. B SHEET 2 OF 2 SCALE 1:4

**SECTION A-A***94624***SECTION B-B****RELEASED**07.03.08 *CH***SECTION D-D****COPYRIGHT © 2002 BY DART AEROSPACE LTD**

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